CLAIM AMENDMENTS

1-19 (canceled)

20. (previously presented) A method of selectively sintering particulate material, comprising the steps of:

(i) providing a layer of particulate material;

(ii) providing radiation over the layer of particulate material;

(iii) varying the absorption of the provided radiation across a selected surface portion of the layer to sinter a portion of the material of the layer;

(iv) providing a further layer of particulate material overlying a prior layer of particulate material including a previously sintered portion of material;

(v) repeating steps (ii) and (iii) to sinter a further portion of the material within the overlying further layer and to sinter said further portion with the previously sintered portion of material in the prior layer;

(vi) successively repeating steps (iv) and (v) to form a three-dimensional object;

wherein step (iii) comprises varying the radiation absorption at the particulate material over the selected surface portion of the layer by providing an amount of radiation absorbent material over the selected surface portion of the layer.

21-32 (canceled)

33. (previously presented) A method of selectively sintering particulate material, comprising the steps of:

(i) providing a layer of particulate material;

(ii) varying the absorption of provided radiation across a selected surface portion of the layer to sinter a portion of the material of the layer;

(iii) providing a further layer of particulate material overlying the prior layer of particulate material including the previously sintered portion of material;

(iv) varying the absorption of provided radiation across a selected surface portion of the further layer to sinter a further portion of the material within the overlying further layer

and to sinter said further portion with the previously sintered portion of material in the prior layer;

(v) successively repeating steps (iii) and (iv) to form a three-dimensional object;

wherein the variation of radiation absorption in steps (ii) and (iv) is obtained by providing an amount of radiation absorbent material over the selected surface portion of the layer and the further layer respectively.

34. (withdrawn) Apparatus for sintering particulate material, the apparatus comprising a printing head comprising radiation absorbent material, and a controller for enabling the exposure of a surface portion of a layer of particulate material to radiation, wherein the controller is arranged to control the variation of radiation absorption across said surface portion by controlling the printing head to deposit an amount of radiation absorbent material over the layer of particulate material.

35. (withdrawn) Apparatus according to claim 34, wherein the controller is responsive to temperature variation across the surface portion and is arranged to control the deposition of an amount of radiation absorbent material in response to the temperature variation.

36. (withdrawn) Apparatus according to claim 34, wherein the controller is arranged to control the deposition of different radiation absorbent materials capable of absorbing different wavelengths of radiation directly onto the surface portion of the layer, and to enable the exposure of the surface portion to radiation of different wavelengths.

37. (previously presented) A method according to claim 33, wherein steps (ii) and (iv) comprise providing a first level of radiation absorption on a first area of the selected portion and a second different level of radiation absorption on a second area of the selected portion, contiguous with the first area.

38. (previously presented) A method according to claim 37, wherein steps (ii) and (iv) comprise providing a third different level of radiation absorption on a third area of the selected portion, contiguous with the second area.

39. (previously presented) A method according to claim 37, wherein step (i) comprises providing a first particulate material in the first area and a second different particulate material in the second area of the layer.

40. (previously presented) A method according to claim 33, comprising providing radiation on a combination area in which particulate material is to be sintered, the combination area including a centre portion and an edge portion, and steps (ii) and (iv) comprise providing greater radiation absorption at the edge portion than at the centre portion.

41. (previously presented) A method according to claim 40, wherein the absorption of the radiation increases from a minimum value at the centre portion to a maximum value at the edge portion.

42. (previously presented) A method according to claim 40, wherein the step of providing radiation comprises providing radiation on a non-combination area contiguous with, and external to, the combination area, and steps (ii) and (iv) comprise varying the absorption of the provided radiation so that the absorption of the radiation over the non-combination area is less than the absorption of the radiation over the edge portion of the combination area.

43. (previously presented) A method according to claim 42, wherein the absorption of the radiation over the non-combination area is less than the absorption of the radiation over the centre portion of the combination area.

44. (previously presented) A method according to claim 33, wherein steps (ii) and (iv) comprise logically dividing the surface area of the selected portion into an array of segments, and providing a different level of radiation absorption on different segments in the array.

45. (previously presented) A method according to claim 44, wherein steps (ii) and (iv) comprise creating a bitmap image that divides the surface area into a plurality of segments.

46. (previously presented) A method according to claim 33, wherein steps (ii) and (iv) comprise providing radiation absorbent material for absorbing a first wavelength of radiation over a first area of the selected surface portion, and providing radiation absorbent material for absorbing a second different wavelength of radiation over a second area of the selected surface portion.

47. (previously presented) A method according to claim 46, wherein the method comprises providing radiation having a first wavelength over the layer of particulate material to combine the material in the first area, and providing radiation having a second wavelength over the layer of particulate material to combine the material in the second area.

48. (previously presented) A method according to claim 33, wherein steps (ii) and (iv) comprise providing varying amounts of radiation absorbent material over the selected surface portion of the layer by printing radiation absorbent material onto the selected surface portion.

49. (new) A method according to claim 33, wherein the absorption of radiation by the radiation absorbent material causes the radiation absorbent material to increase in temperature, heat from the radiation absorbent material being transferred to the underlying layer of particulate material to raise the temperature of the underlying particulate material.